New Orleans Rail Gateway Benefits Report

prepared for
Association of American Railroads

December 2008

by
Cambridge Systematics, Inc.

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report

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Final Report

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date

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Acknowledgements

This study was prepared by Cambridge Systematics, Inc. under contract to the Association of American Railroads. The steering committee, representing the AAR, Amtrak, and the six Class I railroads serving New Orleans, provided invaluable information and advice to the consultant team throughout the study. Their time and effort were very much appreciated.

- Amtrak (ATK)
- BNSF Railway (BNSF)
- Canadian National (CN)
- CSX Transportation (CSX)
- Kansas City Southern (KCS)
- Norfolk Southern (NS)
- Union Pacific (UP)
- Association of American Railroads (AAR)

We also very much appreciated the time, information, and advice provided to us by the many agencies officials, businesses, and individuals who have worked on New Orleans Rail Gateway studies and projects over the years:

- Jefferson Parish
- Jefferson Parish Economic Development Commission (JEDCO)
- Louisiana Department of Transportation and Development (LADOTD)
- Louisiana Chemical Association (LCA)
- New Orleans Public Belt Railroad
- New Orleans Regional Planning Commission (NORPC)
- Port of New Orleans
- Silas Cunningham
- Willard Keeney

Cover photo of Huey P. Long Bridge used with permission of Joel Hinkhouse

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Executive Summary

The New Orleans Rail Gateway serves freight rail traffic from six Class I railroads: BNSF Railway (BNSF), Canadian National (CN), CSX Transportation (CSX), Kansas City Southern (KCS), Norfolk Southern (NS), and Union Pacific (UP). It is also a connection point on Amtrak's southern transcontinental passenger rail routes. And through the New Orleans Public Belt (NOPB) railroad, the Gateway links the Port of New Orleans, the eighth largest tonnage port in the United States, to the national rail network.

The Gateway is one of five major rail interchange points between the eastern and western Class I railroads and also has one of the four major Mississippi River rail bridges. It is one of only three national rail gateways that are both rail interchange hubs and major Mississippi River rail crossings. As such, it is a critical link in the national freight rail system.

The Gateway rail network is operating near capacity with freight trains experiencing a combined 30 hours of delay per day.[1] Addressing this delay could expedite the transfer of railcars between the eastern and western railroads, reducing transit time and costs that are borne by shippers, and eventually benefiting the consumer by providing a lower cost of living. Addressing current deficiencies in the Gateway will become increasingly important as the U.S. Department of Transportation's *Freight Analysis Framework* forecasts, with a moderate economic growth of 3 percent, import and export freight tonnage could double by 2020 and domestic freight tonnage could increase by about 60 percent. Growth of shipping port traffic will increase rail traffic in the New Orleans Gateway; NS serving the Chalmette area ports, refineries and chemical terminals, BNSF/UP serving shippers on the West Bank, CN/KCS on the East Bank, and the NOPB serving the New Orleans Ports.

The Louisiana Department of Transportation and Development (LADOTD), the New Orleans Community and the railroads have been examining rail improvements within the Gateway that would reduce delays and improve rail service to rail customers in the greater New Orleans region. The 2002 *New Orleans Rail Gateway & Regional Rail Operations Analysis* and the 2007 *New Orleans Rail Gateway Infrastructure Feasibility Analysis* evaluated the operations of the Gateway and outlined operational and capital improvements. The key improvements involve upgrading either the "Back Belt" rail lines or creating the "Middle Belt" route option in the central section of the Gateway. Other improvements included, closing crossings, reconfiguring trackage and upgrading bridges and signal systems in the West, Central, and Eastern segments of the gateway. This study summarizes the benefits, costs, and impacts of improving these rail lines along with the related improvements to the Eastern and Western segments of the Gateway. While much of this report focuses on the more complex central segment, it is important to recognize that the Gateway is an integrated corridor and therefore in order to generate useful benefits for the Gateway, the deficiencies of all three segments need to be addressed. The objective of both the "Back Belt" and the "Middle Belt" is to improve the fluidity, reliability, and capacity of the Gateway for the interchange of local industry and Port traffic as well as the exchange of East-West rail traffic.

[1] *New Orleans Rail Gateway Infrastructure Feasibility Analysis* (Brown Cunningham Gannuch, 2007).

The Back Belt alternative would elevate the existing rail lines through the Metairie neighborhood in Jefferson Parish, eliminating seven at-grade street crossings and replacing them with four underpasses. The railroads move 24 freight trains a day through the residential neighborhood today, creating traffic delays, air pollution, noise, and vibration. The Back Belt improvements would eliminate most traffic delays, but would increase the number and the speed of trains moving through the corridor.

The Middle Belt alternative would create a new route between East Bridge Junction and East City Junction by linking existing but lightly used rail lines through Jefferson and Orleans Parishes. Commonly known as the "Carrolton Curve," this routing has been identified as an option since 1955 but not considered due to perceived engineering and environmental challenges[2]. Today, Amtrak operates one or two trains a day along these lines that are owned by the New Orleans Union Passenger Terminal Company and are used for completing the route of Amtrak trains from the Class 1 carriers (NS at East City Junction and CN at Southport) to the Union Station on Loyola Avenue. Under the Middle Belt alternative, 28 freight trains a day would use the line. Construction of a new rail link under the I-10/Carrollton Avenue overpass would require compensation and relocation of two homes, two businesses, and an outdoor recreation field. Although a number of the homes and businesses abutting the existing rail lines were abandoned after Hurricane Katrina, it is likely that the increased rail traffic would warrant the addition of noise and visual buffers between the rail line and the neighborhoods. Traffic from the Back Belt would be routed to the Middle Belt. A portion of the Back Belt (from East City Junction/I-10 to Airline Highway) would be eliminated, removing all rail-related traffic delays, noise, and vibration in the Metairie neighborhood and other neighborhoods near the Back Belt.

Closing a segment of the Back Belt would make it possible for the City and LADOTD to eliminate two highway underpasses; one at the intersection of I-10 and the Back Belt line, and a second at the intersection of the Airline Highway the Back Belt line. Both underpasses are part of key hurricane evacuation routes and flooded during Hurricane Katrina. Eliminating the underpasses would help ensure that I-10 and Airline Highway, both of which are critical emergency routes, remain open for evacuation and emergency response operations during future storms.

Both the Back Belt and Middle Belt alternatives would benefit the city, the Port of New Orleans, and the state by removing numerous grade crossings, improving the reliability of freight rail service offered to shippers and receivers in the greater New Orleans region. This would help retain existing rail freight shippers and contribute to the economic recovery of the city and region. Neither alternative would preclude future construction and operation of a commuter rail from New Orleans to Baton Rouge or a light rail from downtown New Orleans to the airport.

The major impacts of each alternative can be found on the following pages and are grouped by:

- No Action Alternative
- Back Belt Alternative
- Middle Belt Alternative

[2] Jefferson Parish Police Jury Ordinance 2744

No Action Alternative

Groups that may be ***disadvantaged*** if no action is taken:

- *City and State Public Safety:* Continued risks associated with highway-rail crossings. Challenges of maintaining the pumping capacity to prevent the closures of the I-10 underpass and the Airline Highway underpass at the Back Belt caused by flooding from Hurricane events and/or major rainfall storms;
- *Avondale Neighborhood:* Increased rail traffic causing more congestion at crossings; note this area has been identified for additional residential development;
- *Metairie Neighborhood*: No relief from existing conditions and if rail traffic increases, then more congestion at crossings; with increased noise and vibration;
- *Jefferson Neighborhood*: Increased emissions, noise, vibration caused by increased traffic and increased staging of trains on the Back Belt between East City Jct. and Peoples Canal (generally at City Park);
- *Gentilly Neighborhood*; Increased rail traffic, causing more congestion at crossings caused by trains held out of Gentilly Yard; increased noise and vibration;
- *Shippers and Receivers:* Reduced reliability of rail freight services potentially affecting the competitiveness of New Orleans and Louisiana shippers; and
- *Passenger Rail*: Limited ability to expand rail passenger or future light rail service.

Back Belt Alternative

Groups that may ***benefit*** if the Back Belt alternative is selected:

- *City and State*: Retention of rail shippers; better service to support economic development;
- *Avondale Neighborhood, Metairie Neighborhood, and Gentilly Neighborhood;* Reduced traffic delay and auto emissions from elimination of at-grade crossings; less noise and vibration from starting and stopping trains;
- *Shippers and Receivers*: Improved rail shipment reliability;
- *Passenger Rail*: Improved speeds and reliability, reduced delays; and
- *Freight Railroads*: Reduced delay, some increased, but limited, capacity for future growth.

Groups that may be ***disadvantaged*** if the Back Belt alternative is selected:

- *Metairie Neighborhood*: Additional rail traffic, emissions, noise, and vibration; and
- *Jefferson Neighborhood*: Additional rail traffic, emissions, noise, and vibration.

Middle Belt Alternative

Groups that may ***benefit*** if the Middle Belt alternative is selected:

- *City and State*: Opportunity to fill in the I-10 and Airline Highway underpasses, which flood during storms, improving emergency evacuation and post-disaster emergency worker access, reduced traffic delays; retention of rail shippers; better service to support economic development;
- *Avondale Neighborhood*: Reduced traffic delay and auto emissions from elimination of at-grade crossings, less emissions, noise and vibration;
- *Metairie Neighborhood*: Reduced traffic delay and auto emissions from elimination of at-grade crossings; less emissions, noise, and vibration; and creation of additional developable land;
- *City Park Neighborhood*: Reduced train noise, vibration, and emissions because rail interchange operations are relocated to a predominantly industrial area;
- *Shippers and Receivers*: Improved service reliability;
- *Port of New Orleans*: Additional capacity on the NOPB rail line allowing for expansion of the port's intermodal container shipping business;
- *Passenger Rail*: Higher maximum speeds and reliability compared to the Back Belt alternative; reduced delay; and
- *Freight Railroads*: Increased train throughput compared to the Back Belt alternative. Large increase in capacity for future growth.

Groups that may be ***disadvantaged*** if the Middle Belt alternative is selected:

- *Mid-City, Dixon, and Hollygrove Neighborhoods*: If not mitigated, additional rail emissions, noise, and vibration; loss or relocation of two homes, two businesses, and an outdoor recreation field; and
- *Jefferson Neighborhood*: If not mitigated, additional rail traffic, emissions, noise, and vibration.

1.0 Introduction

This report is intended to provide decision makers with an overview of the proposed projects and their major benefits and costs. The study findings are based primarily on previously conducted studies and available background data, which were provided by the Louisiana Department of Transportation and Development (LADOTD), the New Orleans Regional Planning Commission (NORPC), the Association of American Railroads (AAR), and the railroads. New data collection and new technical analyses were kept to a minimum. Specifically, this study did not replicate prior rail operations simulation or engineering feasibility studies. Nor is this study intended to substitute for a full and formal Environmental Impact Statement study.

Background

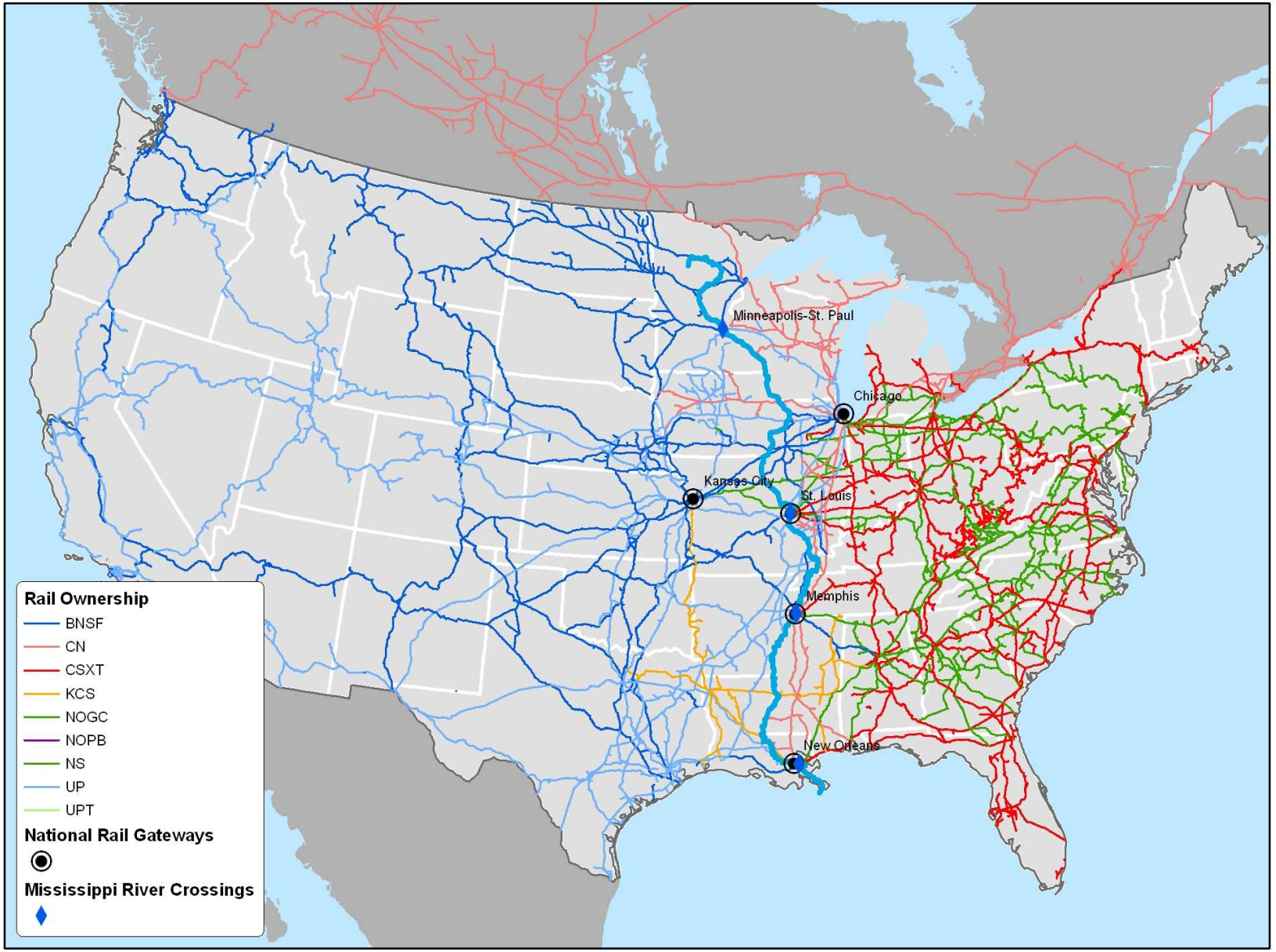
The LADOTD, NORPC, and the AAR, representing Amtrak and the six Class I freight railroads serving New Orleans, have been studying improvements to the New Orleans Rail Gateway that would improve rail service, reduce rail impacts on the adjacent communities, and further the economic recovery and development of the metropolitan area. Their studies have identified a number of interrelated "chokepoints" across the Gateway rail network.

The *New Orleans Rail Gateway and Regional Rail Operational Analysis* (URS, 2002) and the *New Orleans Rail Gateway Infrastructure Plan* (AAR, 2004) analyzed physical and operational improvements that would eliminate the worst chokepoints and improve freight movement through the Gateway. The studies recommended further evaluation of a program of improvements that would close a portion of the "Back Belt" rail corridor (I-10 to Airline Highway) and create an alternate route, the "Middle Belt" rail corridor. In 2007, the engineering firm of Brown Cunningham Gannuch was commissioned by LADOTD, NORPC, and the AAR to conduct and document the technical feasibility of these improvements in the *New Orleans Rail Gateway Infrastructure Feasibility Analysis* (Feasibility Study). The study assessed the technical feasibility of both the Middle Belt and Back Belt alternatives as well as improvements to the eastern and western rail approaches to the New Orleans Rail Gateway.

This study examines the transportation, social, economic, environmental benefits, and costs of the proposed Gateway improvements from national, regional, and local perspectives. The study builds on the technical findings of the Feasibility Study. The study quantifies benefits and costs where possible and provides qualitative assessments where technical data and cost estimates were not readily available.

The study assessed benefits and costs in a five-step process that: 1) established the alternative Gateway improvement programs (including a no-action alternative as a base case); 2) identified the parties with an interest in the Gateway improvements (e.g., railroads, the state, regional, and local governments, communities, shippers, and receivers, etc.); 3) defined the categories of benefits, costs, and risks of most interest to each party (e.g., jobs and tax benefits for the State, safety and environmental impacts for abutting communities, etc.); 4) arrayed information on the magnitude, duration, and significance of the benefits for each party for each alternative; and finally, 5) assessed and summarized the overall effects of the proposed Gateway improvements.

Figure 2.0 National Rail Network



2.0 The New Orleans Rail Gateway

National Rail Interchange Hub

New Orleans is a major transportation center. It was founded in the era of sail as a hub connecting north-south riverboat traffic along the Mississippi with deepwater sailing ships serving world markets. In the rail era, it added north-south and east-west rail lines that connected New Orleans to all the major markets in North America.

The national rail network, the routes of the Class I railroads, and the major rail interchange hubs—locations where the eastern, central, and western railroads interchange railcars moving across the country—are shown in Figure 2.1.

Six out of the seven North American Class I railroads—BNSF Railway (BNSF), Canadian National (CN), CSX Transportation (CSX), Kansas City Southern (KCS), Norfolk Southern (NS), and the Union Pacific (UP)—interchange freight through the New Orleans Gateway, making it the fourth largest rail gateway in the United States. In 2005, the New Orleans Gateway handled 119 million tons of freight:

- 904,278 carloads (2.7% of national);
- 39,061,187 tons (1.3% of national and approx. 1/3 of total state tons); and
- 504,960 intermodal containers (4.2% of national)

New Orleans is also the connecting point for Amtrak's daily passenger services from New Orleans to Chicago and to Washington D.C. and New York, as well as for Amtrak's tri-weekly service to Los Angeles.[3]

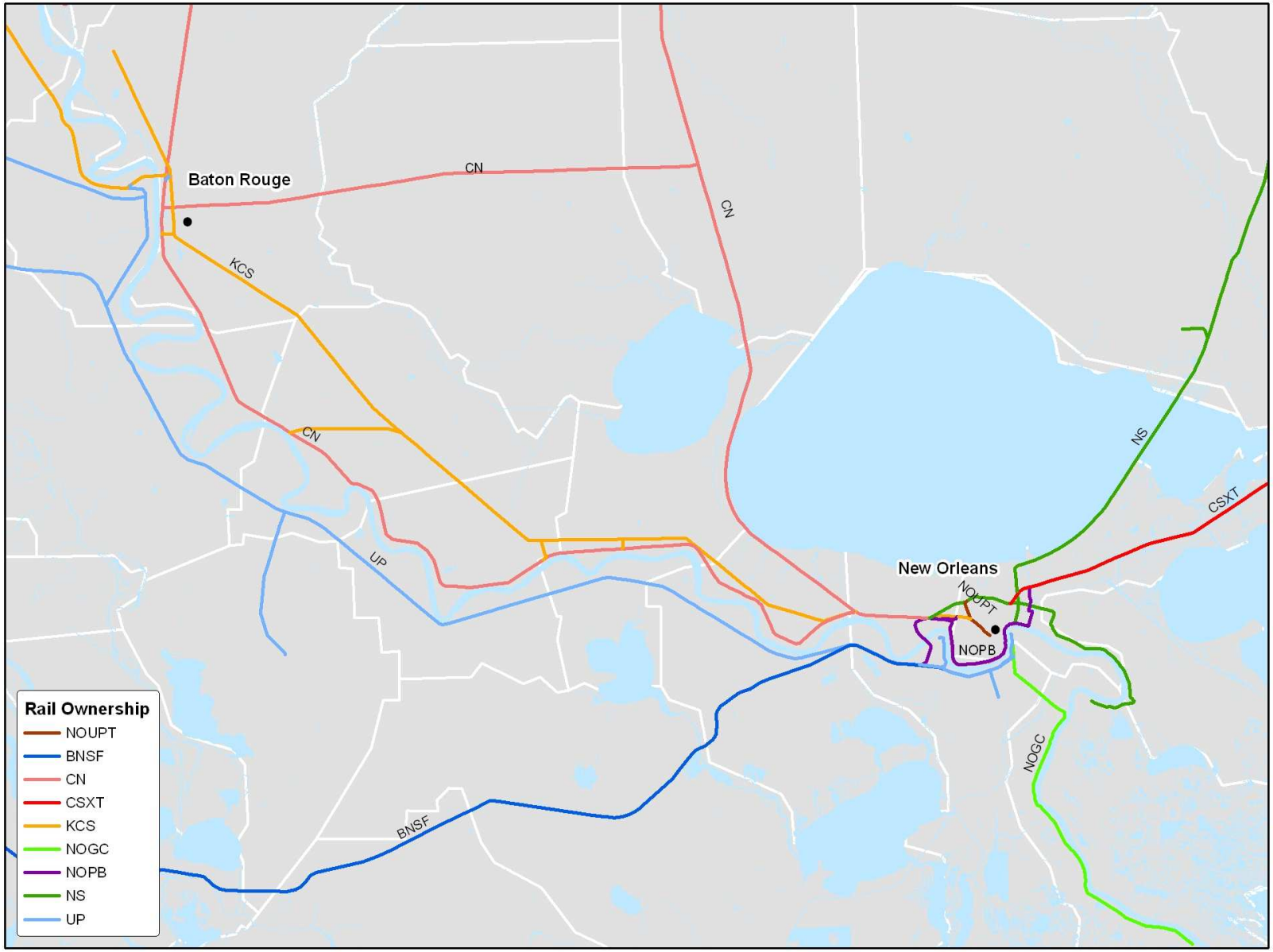
Mississippi River Rail Crossing

The New Orleans Rail Gateway is one of a few major rail crossings over the Mississippi River. The Huey P. Long Bridge, part of the Rail Gateway, is the southern-most rail crossing over the Mississippi. There are rail bridges at Baton Rouge and Vicksburg (both used exclusively by KCS), but the next major rail interchange hubs to the north with Mississippi rail crossings are in Memphis and St. Louis.

The importance of the major interchange hubs and crossings is highlighted when natural disaster strikes. During the floods of 1993, the St. Louis rail crossing and gateway were inoperable, forcing freight traffic to divert to other gateways and hubs. It was months before national rail traffic recovered from the resulting congestion and delays. In 2005, Hurricane Katrina closed the New Orleans Rail Gateway for weeks and destroyed CSXT's rail lines into the New Orleans Gateway, forcing rail traffic to divert through Memphis, again resulting in congestion and delays. Today, the demand for freight rail transportation is pressing the capacity of the national rail system, making interchange hubs and Mississippi crossings such as the New Orleans Rail Gateway critically important to the overall performance of the national rail system.

[3] Amtrak's tri-weekly service to Jacksonville, FL was suspended after Hurricane Katrina.

Figure 2.1 New Orleans Rail Gateway Region



Source: USGS National Wetlands Research Center, CWPPRA Task Force, LA Department of Environmental Quality

Gateway Rail Lines

Figure 2.1 shows the national and local rail lines connecting through the New Orleans Rail Gateway. Routes marked with an asterisk (*) currently also handle Amtrak service. The rail lines, reading clockwise from the west side of the map, are:

- Western Railroads
  - *BNSF Railway (BNSF) to Beaumont and Houston; and
  - Union Pacific (UP) line to Baton Rouge, Houston, and Dallas.
- Central Railroads
  - Canadian National (CN) line to Baton Rouge;
  - Kansas City Southern (KCS) line to Baton Rouge, Shreveport and Kansas City; and
  - *Canadian National (CN) line to Jackson, Memphis, and Chicago.
- Eastern Railroads
  - *Norfolk Southern (NS) line to Birmingham, Cincinnati, and Atlanta; and
  - CSXT line to Mobile, Montgomery, and Atlanta.
- Local Railroads
  - New Orleans and Gulf Coast line to Myrtle Grove, LA; and
  - New Orleans Public Belt Railroad (NOPB) line to the Port.

Serving the Chemical Corridor[4]

The top commodities moved through the Gateway are:

1. Chemicals (44.2% of total area revenue);
2. Mixed Freight (14.3% of total area revenue);
3. Pulp and Paper (7.0% of total area revenue);
4. Food Products (5.4% of total area revenue);
5. Petroleum (5.1% of total area revenue);
6. Primary Metal Products (4.2% of total area revenue);
7. Transportation Equipment (3.7% of total area revenue);
8. Glass and Stone (3.0% of total area revenue);
9. Misc. Freight (1.9% of total area revenue); and
10. Lumber Wood Prod (1.6% of total area revenue).

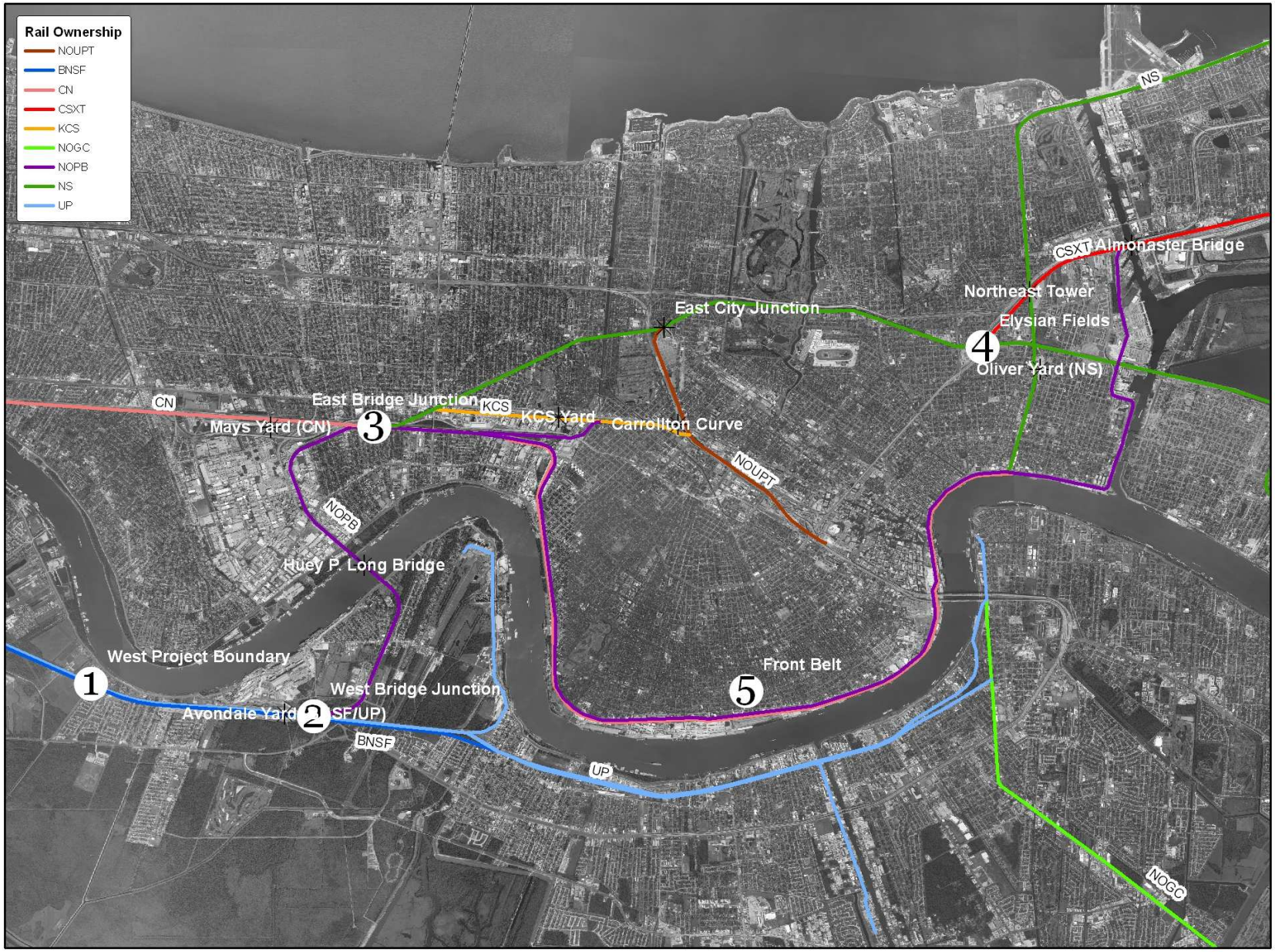
The Gateway provides critical access for chemical producers to international and U.S. markets. Note that coal traffic is not a top commodity in the Gateway.

Serving the Ports

The Gateway also provides critical access to the Ports of South Louisiana and New Orleans, which rank as the nation's No. 1 and No. 8 ports by tonnage, respectively. The Port of New Orleans is the only deepwater port in the U.S. served by six Class I railroads. This gives port users direct and economical rail service to or from all rail points in North America. According to a 2004 study conducted by Martin Associates, maritime activity within the Port of New Orleans is responsible for 160,498 jobs, $8 billion in earnings, $17 billion in spending, and $800 million in taxes statewide.

[4] Commodity data from the 2003 STB Waybill

Figure 2.2 New Orleans Rail Gateway Rail Lines



Gateway Operations

The Gateway connects the six Class I rails to each other and to the NOPB, which provides local rail service to the Port of New Orleans. The Gateway works as follows (See Figure 2.2.):

1. The New Orleans Rail Gateway begins on the west bank of the Mississippi River at approximately the western boundary of Jefferson Parish. Trains moving east follow the Union Pacific (UP) and BNSF Railway (BNSF) tracks through the Avondale Yard to West Bridge Junction (WBJ).
2. At West Bridge Junction, transcontinental trains use the Huey P. Long Bridge (HPLB) to cross the Mississippi River. The tracks across the bridge are owned and operated by NOPB. UP and BNSF trains serving Port of New Orleans terminals on the south bank branch off at West Bridge Junction.
3. At the north end of the bridge, eastbound trains enter East Bridge Junction (EBJ). The CN and KCS lines, which follow the east bank of the Mississippi down from Baton Rouge, enter the Gateway here. Eastbound trains then turn north onto the Back Belt, using tracks owned and operated by Norfolk Southern (NS). The trains follow the Back Belt, entering the City of New Orleans at the 17th Street Canal, cross through the City Park neighborhoods, and connect to the CSX line at Elysian Fields Avenue.
4. From Elysian Fields, eastbound trains take either the CSX line crossing the Inner Harbor Navigation Canal on the Almonaster Bridge to the CSX Gentilly Yard or follow the NS lines east and south to Oliver Yard, reversing direction to take the NS line north along the shore of Lake Pontchartrain. Amtrak intercity passenger rail trains, from the east, follow the freight routes to East City Junction, where they turn south along a spur line now owned by the City of New Orleans as the New Orleans Union Passenger Terminal (NOUPT) line. Amtrak intercity passenger rail trains, from the west, pass through EBJ to the end of CN lines and continue to Union Station on NOUPT lines.
5. Eastbound trains can also follow the NOPB's Front Belt line from the Huey B. Long Bridge along the north bank of the Mississippi River. This 18-mile route serves the Port of New Orleans terminals below and along the historic French Quarter, and then turns north, following the Industrial Canal, to intersect the CSX line at the Almonaster Bridge[5]. NOPB's Front Belt also junctions with NS along the Riverfront near Press Street.

Shown in Table 2.1 are the Gateway rail interchange movements for a sample week; December 4-10, 2000. The counts include maintenance, industrial/support yard switching, and mainline operations.

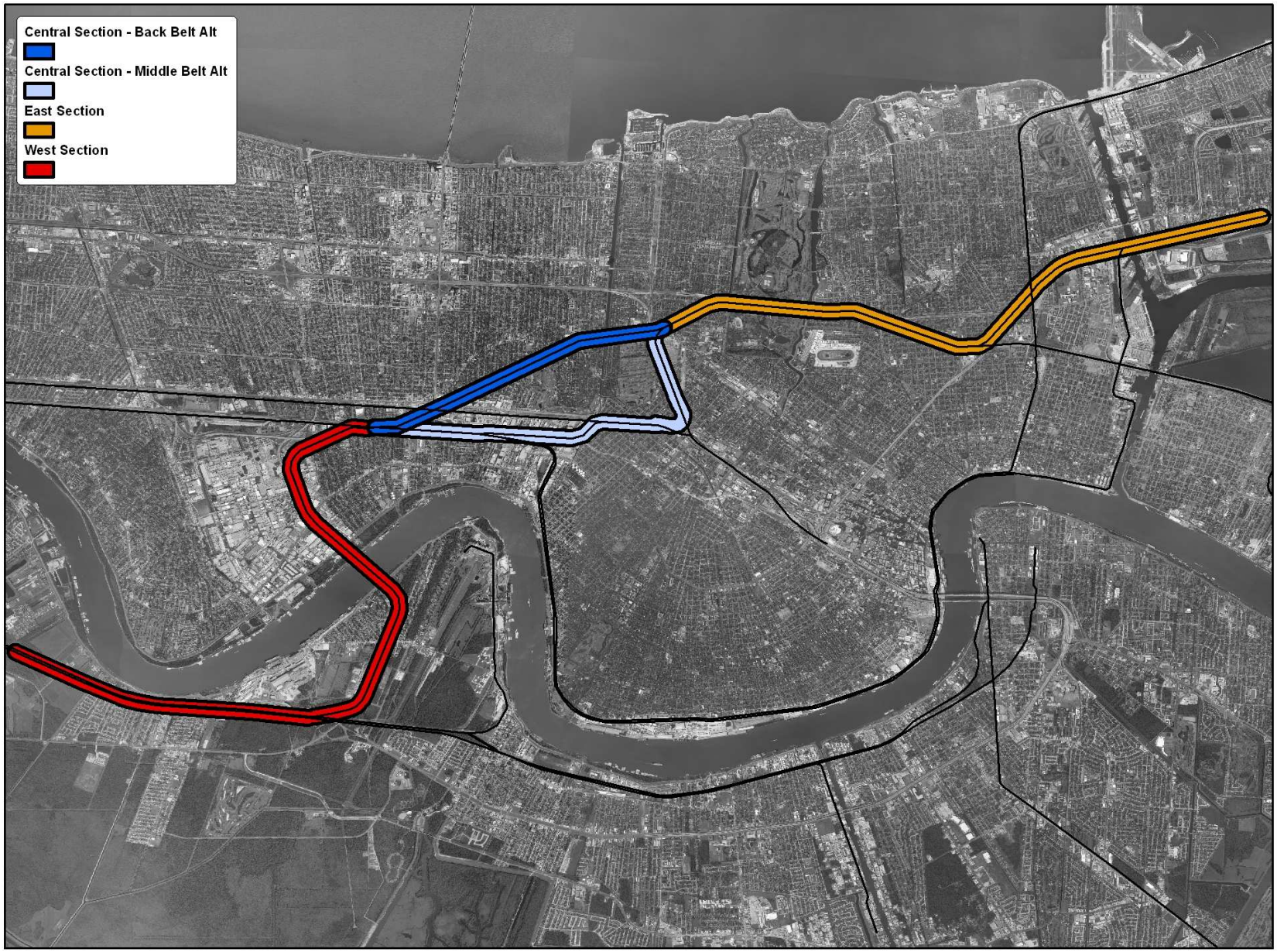
Table 2.1 Inter-Railroad Train Movements[6]

	To							
From	**AMTK**	**BNSF**	**CN**	**CSX**	**KCS**	**NOPB**	**NS**	**UP**
AMTK	34							
BNSF						17		
CN					2	9	7	6
CSX						15		36
KCS			2	7				
NOPB		15	6	8	8		7	4
NS			7			7		16
UP			11			4	17	

[5] *New Orleans Rail Gateway Infrastructure Feasibility Analysis* (Brown Cunningham Gannuch, 2007).

[6] New Orleans Rail Gateway & Regional Rail Operational Analysis (URS, 2002)

Figure 3.0 New Orleans Rail Gateway Sections



3.0 Gateway Improvements

GATEWAY SECTIONS

The Gateway improvements are grouped by section. There are three sections within the Gateway, as shown in Figure 3.0:

- West section covers the lines and yards from the western study limit to East Bridge Junction;
- Central section includes the lines and yards from East Bridge Junction to just east of the I-10 railroad overpass. There are three rail corridors in the Central Section: the Back Belt; the Middle Belt, and the Front Belt. Improvements are proposed only for the Back Belt and the Middle Belt, which are highlighted on the map; and
- East section covers the rail lines and yards from just east of the I-10 railroad overpass to the eastern study limit.

Within each of these sections, projects have been proposed to improve safety of operations, to improve freight and passenger rail efficiency and reduce the impact of railroad operations on the surrounding communities. The next sections of the report describe the projects proposed for the central section's Back Belt and Middle Belt alternatives, then describe the projects proposed for the west and east sections.

GATEWAY CHOKEPOINTS

The major rail chokepoints within the Gateway are:

- Throughout the Gateway, trains must observe a maximum speed of 20 mph, necessitated in part by antiquated control systems and switches.
- Flood gates at various locations are closed up to 24 hours before and after storm events limiting the railroads' ability transport evacuees and emergency supplies.

West Section Chokepoints

- Four at-grade crossings prevent railroad from staging trains near Avondale Yard;
- Lack of track capacity and centralized train control; and
- Delays occur at the Huey P. Long Bridge (HPLB) the nation's longest double-track open-deck rail structure, due to continual daily maintenance activity on the structure thereby requiring single track operations whenever maintenance gangs are engaged in work. The HPLB also has a highway bridge (US 90) attached on the spans over the Mississippi River.

Central Section Chokepoints

- At East Bridge Junction, a complex interlocking with outdated controls and obsolete routings, allow only one train at a time to pass. This is the key junction for the majority of the Gateway rail traffic;
- Along the Back Belt, through Metairie, numerous at-grade road crossings prevent the railroads from staging trains waiting to cross the HPLB; the trains are held in the area of City Park;
- At East City Junction, trains must wait to use the single track section of the Back Belt between City Park and Metairie;
- At NE Tower, Amtrak and UP trains must follow a circuitous and time-consuming route to get to the Back Belt line; and
- Along the Front Belt, the single-track line (with 20 at-grade road crossings and several pedestrian crossings in the French Quarter) slows service to the Port of New Orleans.

East Section Chokepoints

- Almonaster Rail Bridge requires frequent maintenance and is currently unreliable for the needs of scheduled rail traffic;
- Lack of track capacity at CSX Gentilly Yard; and
- Several at-grade rail crossings.

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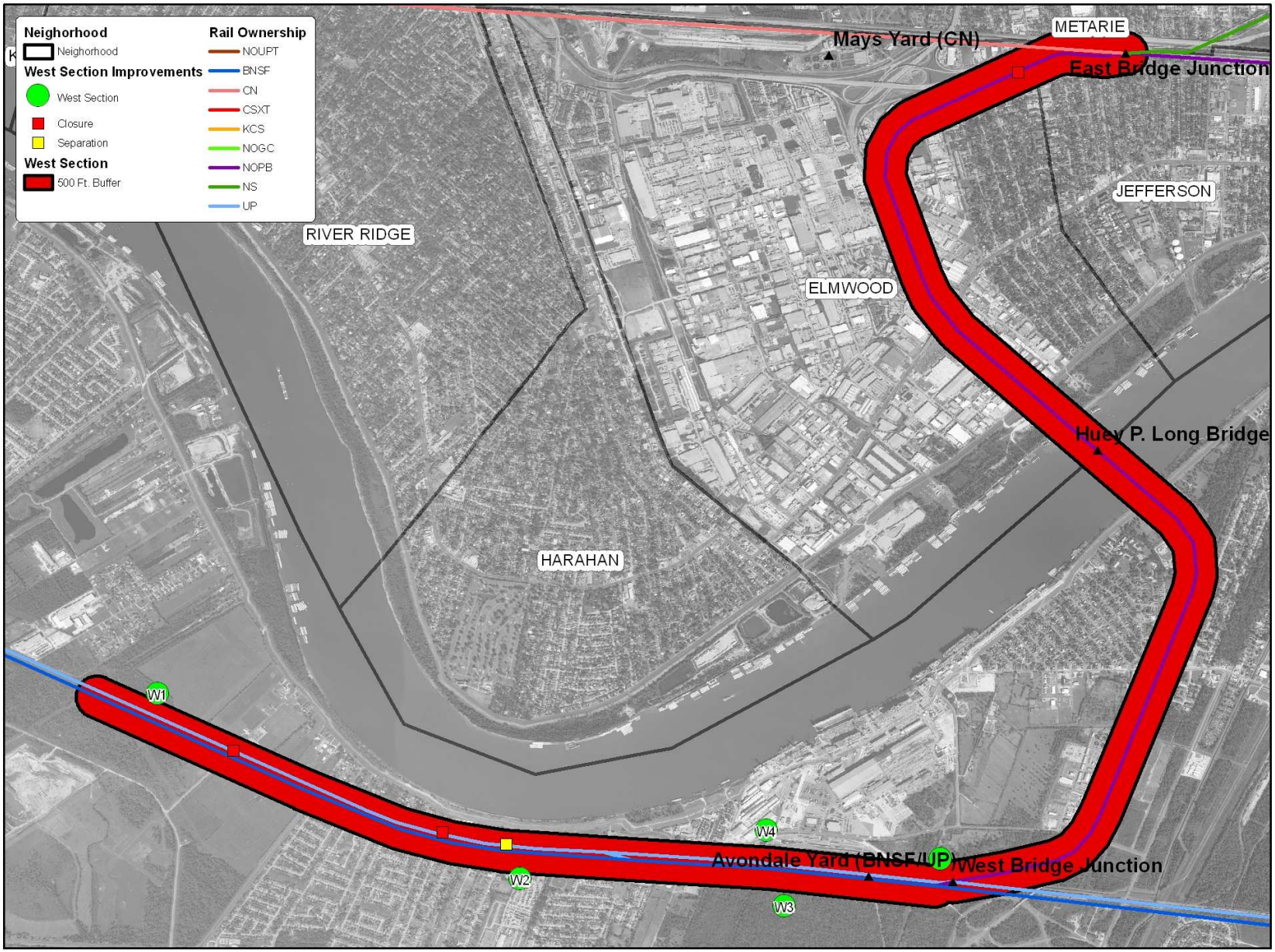
Figure 3.1 West Section Improvements



WEST SECTION IMPROVEMENTS

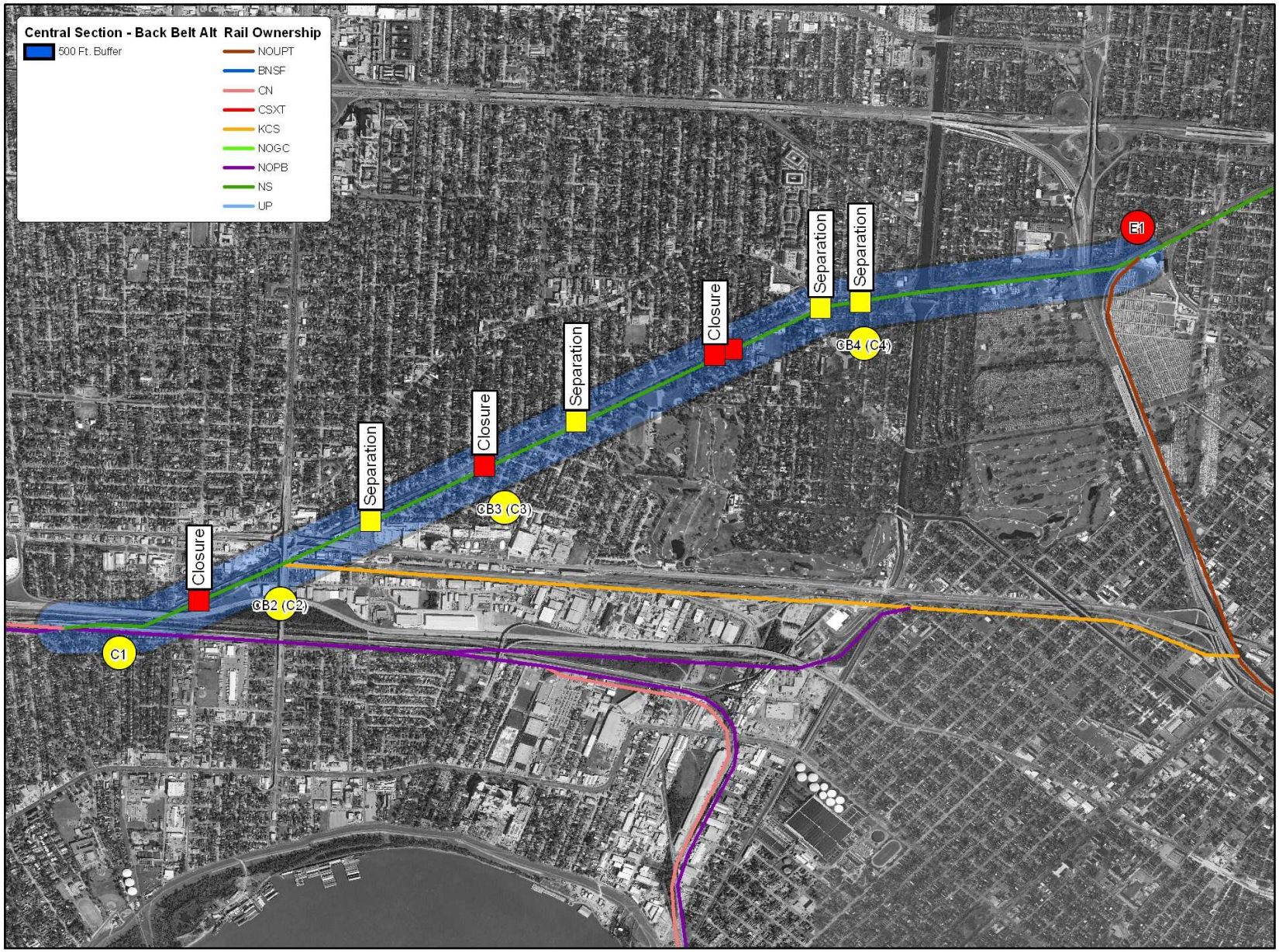
The West Section, as shown in Figure 3.1, includes the area between the western study limit and East Bridge Junction. This is a double-track corridor running through a portion the west bank of Jefferson Parish, on high ground that is projected to see increased residential development, and then continuing on to the Huey P. Long Bridge. The major chokepoints, which would be eliminated, are:

- Potential Amtrak delays and long car dwell and switching times caused by conflicting train moves between the UP and BNSF yards;
- Delays caused by slow train speeds due to an incomplete signal system that hold trains, including Amtrak, to reduced speeds;
- Delays crossing the Huey P. Long Bridge due to limited capacity, outdated train control system and maintenance practices; and
- Delays at at-grade crossings caused by increased traffic from residential neighborhoods development in the area.

West Section Projects:

- Avondale Yards (W1): Extension of centralized traffic control (CTC) eastward from Willis and including new BNSF main track to WBJ to increase train speeds from 10 mph to 40 mph for freight and Amtrak trains;
- Avondale Yard (South) (W2): Construction of 4,200 ft. of new south main track to increase access to WBJ and increase switching efficiency, allowing through freight trains and Amtrak better access to the Huey P. Long Bridge;
- Avondale Yards (W3): Construction of 2,200 ft. of new BNSF main track and upgrade of 2,000 ft. of existing track to increase access to WBJ and reduce train movement conflicts;
- Avondale Yards (North) (W4): Extension of lead track by approximately 1,200 ft. to increase switching efficiency;
- West Bridge Junction (W5): Upgrade of manual interlocking controls and reconfiguration of trackage to increase speed and reduce delay for through, switching, and Amtrak moves; and
- Closure of three (3) at-grade railroad crossings to reduce delays and improve safety.

Figure 3.2 Back Belt Alternative



CENTRAL SECTION IMPROVEMENTS: BACK BELT ALTERNATIVE ("ALT. A")

Back Belt

The "Back Belt" is the current rail freight route connecting the Eastern carriers and the Western carriers through the Gateway, as shown in Figure 3.2. This 8-mile route begins at East Bridge Junction and runs through Jefferson and Orleans Parishes, ending at the main lines of NS and CSX in East New Orleans. NS owns the route and CN, CSX, KCS, and UP Railroads have trackage rights and operate trains over portions of the route. Amtrak uses the portion of the Back Belt eastward from the Union Passenger Terminal (UPT) track at East City Junction. Rail traffic over the portion of the Back Belt through the Jefferson Parish neighborhood of Old Metairie has been a concern to the community for years because of the conflict of rail traffic (up to 24 trains per day) and local road crossings, as the tracks divide the neighborhood.

The improvements to the Back Belt—designated in prior engineering studies as "Alternative A"—would raise the rail embankment above its existing elevation beginning near Airline Highway continuing through to Metairie Road and 17th St. Canal and return to existing track grade before the I-10 underpass. New underpasses would be constructed at four locations, eliminating the at-grade street/rail line crossings. Three other road crossings would be closed. Except at Metairie Road, only automobiles and emergency vehicles would be permitted to use the new underpasses because of restrictive overhead clearance. Truck traffic would be prohibited on these streets, which primarily serve residential neighborhood traffic. The improvements would separate auto and rail traffic, thereby improving safety and reducing delays for automobile drivers. Each crossing requires a drainage pumping station with emergency back-up power. The embankment would be landscaped to provide a visual screen from the adjacent neighborhood.

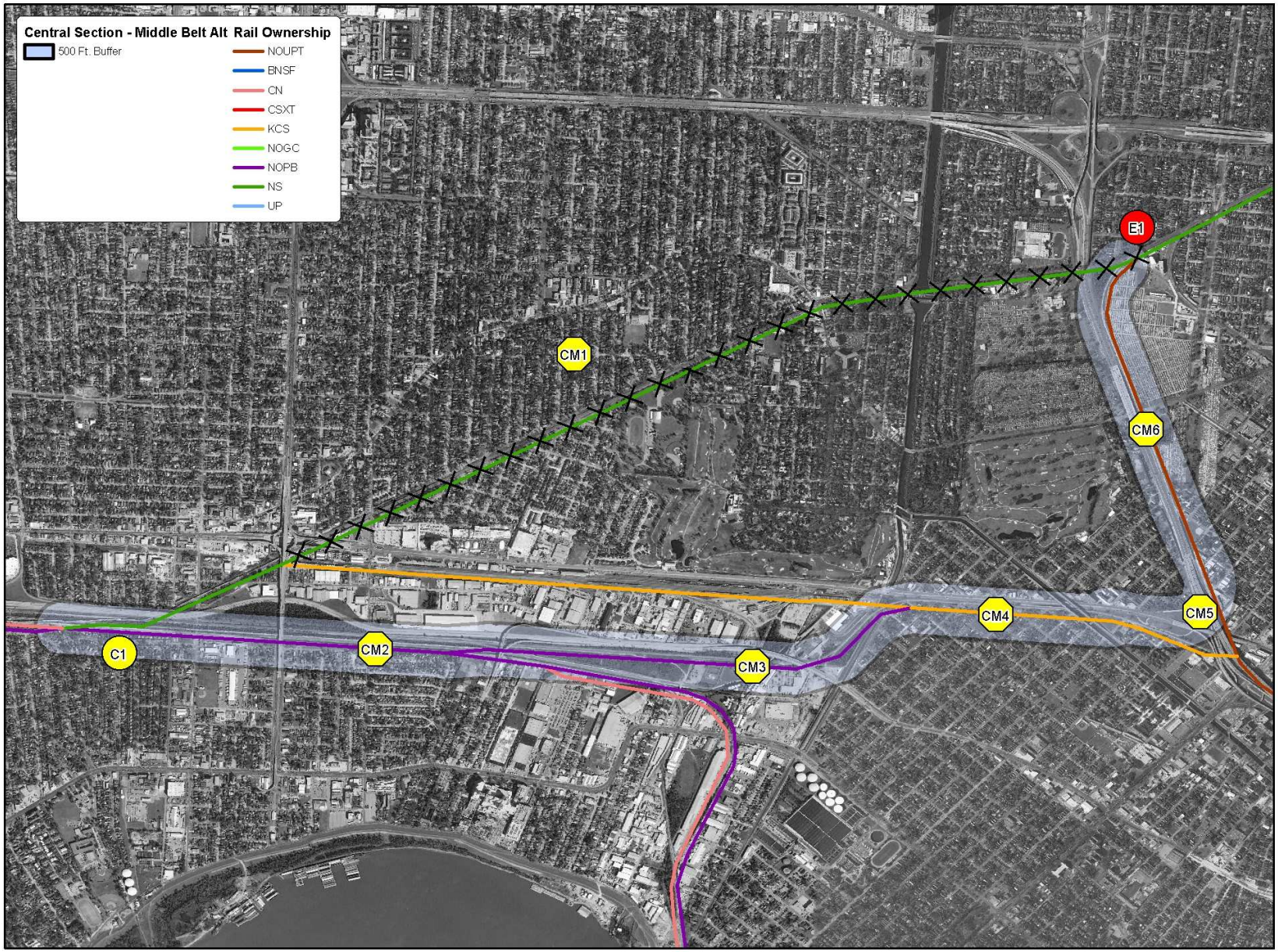
Back Belt Projects

- EBJ (C1): Upgrade of interlocking controls, reconfiguration of trackage for improved train speed/reduced delay;
- Shrewsbury (C2): Installation of traffic control system (TCS) from EBJ to Metairie Road; new control point at Shrewsbury;
- Metairie (C3): Elimination of seven road crossings, and conversion of siding into a second main track;
- 17th Street Canal (C4): Double tracking across Metairie Road and the 17th Street Canal; and
- Central Avenue (C10): Closure of this road that crosses 8 parallel tracks in the vicinity of East Bridge Junction.

Key Features/Impacts

- "Back Belt" established as elevated, double-track corridor;
- At-grade crossing conflicts eliminated through creation of closures and construction of underpasses;
- Additional pumping provided to maintain dry underpasses; and
- Increased train speeds.

Figure 3.3 Middle Belt Alternative



CENTRAL SECTION IMPROVEMENTS: MIDDLE BELT ALTERNATIVE ("ALT. B")

Middle Belt

The "Middle Belt" has been proposed as an alternative freight rail route, in the area of Old Metairie, for a 3-mile segment of the existing Back Belt through the Gateway, as shown in Figure 3.3. This route begins at East Bridge Junction, then parallels existing CN mainline, passing beneath the Earhart Boulevard structures at the Orleans Parish line, then on the western segment of the New Orleans Union Passenger Terminal (UPT) tracks proceeding north to Airline Highway, and along Airline Highway into the City of New Orleans. At the Tulane Avenue/Airline Highway interchange (Carrolton Curve), two tracks would turn north to the UPT tracks, passing through the interchange and continuing north on the eastern segment of the UPT tracks beside I-10 to intersect with the existing Back Belt/NS tracks at East City Junction.

The improvements to the Middle Belt—designated in prior engineering studies as "Alternative B"—would establish a double-track corridor and east-west switching/holding yard south of the industrial area below Airline Highway. A key element of the proposal is construction of "Carrollton Curve," twin tracks threaded under I-10 to connect the existing CN mainline to the UPT tracks. Opening this through route would eliminate the need for the Back Belt through Metairie between Causeway Boulevard and East City Junction as well as those projects to grade separate the Old Metairie road crossings and elevate the railroad grade including modifications at 17th St. Canal. The Middle Belt would be shared by the NS, CN, and CSX railroads. Amtrak would use the new Middle Belt eastern portion of the line from Carrollton Curve to East City Junction and the western portion of the line from Carrollton Curve to Southport and then continue on CN main to East Bridge Junction.

Middle Belt Section Projects

- Back Belt (CM1): Closure of Back Belt rail line;
- Deckbar (CM2): Modification of the Deckbar Ave. overpass;
- Earhart (CM3): Modification of Earhart Blvd. main roadway;
- KCS Diamond (CM4): Installation of main line track and sidings from EBJ to KCS diamond;
- Monticello (CM4): Improved drainage at Monticello Canal;
- Palmetto St. and Canal (CM4): Reconstruction of Palmetto St. overpass; reconstruction of rail bridges at Palmetto Canal;
- Airline Drive (CM4): Reconstruction of the Airline Dr./Tulane Ave. interchange;
- I-10 (CM5): Modifications to the substructure of the I-10/Carrollton Ave. overpass;
- City Park (CM5): Reconstruction of City Park Ave. overpass;
- Carrollton Curve (CM5): Installation of track from the KCS diamond to the East City Junction; and
- ROW (CM5): Acquisition of additional right-of-way.

Key Features/Impacts

- Creates a new 4-1/2 mile double track main line corridor from East City Junction to East Bridge Junction that is without grade crossings;
- The removal of the portion of the Back Belt allows the removal of the I-10 and Airline Highway railroad overpasses,

permitting the low points of the these key evacuation routes to be filled;

- Reallocation of pumping capacity to neighborhoods;
- Multiple siding/interchange tracks built between East Bridge Junction and Southport improves the staging and routing of trains over the NOPB Huey P. Long Bridge;
- Elimination of train staging at City Park;
- Provision of new mainlines for CN, and dedication of the existing CN main to Amtrak operations;
- Increased train speeds;
- Rerouting of the Metairie portion of the Back Belt results in no loss of direct rail service to industries or businesses; and
- Redevelopment opportunities within the corridor.

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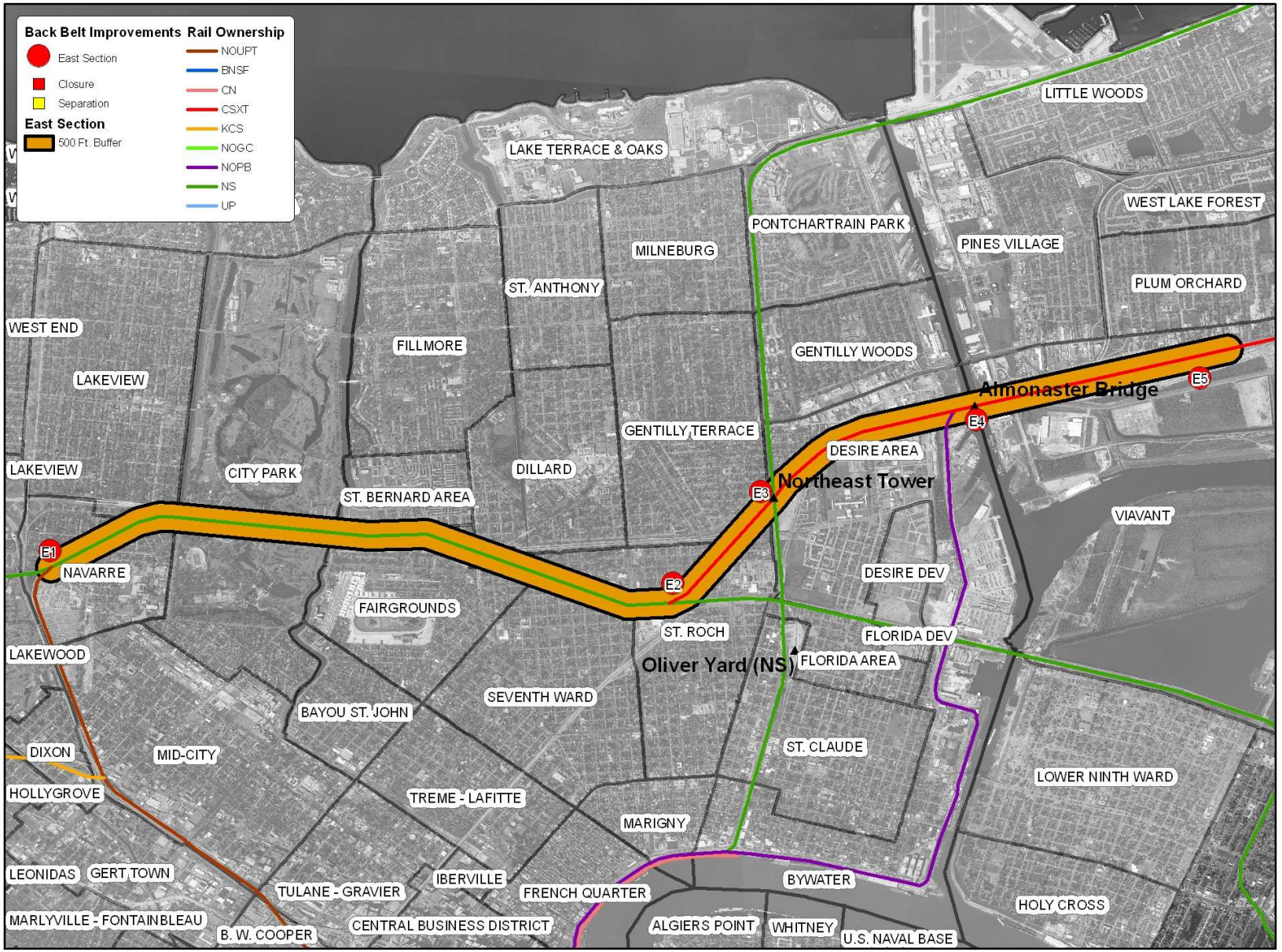
Figure 3.4 East Section Improvements



EAST SECTION IMPROVEMENTS

The East Section, as shown in Figure 3.4, includes the area from east of the I-10 railroad overpass to the eastern study limit. This is a double-track corridor serving freight and Amtrak trains. The major chokepoints, which would be eliminated under both the Back Belt and the Middle Belt alternatives, are:

- Delays to freight and Amtrak trains moving through the congested East City Junction because of limited routing options;
- Delays caused by conflicts between freight and Amtrak movements over curved, single track routing at NE Tower and Oliver Junction and Elysian Fields; and
- Delays to BNSF, CSX, NOPB, and UP train movements caused by the poor mechanical condition of the Almonaster Bridge at the Inner harbor Navigation Canal. This bridge has been studied for replacement for many years.

Trains idling on the tracks adjacent City Park as crews are switched are also a problem. While this project did not review the impact of adding a third NS Back Belt mainline, improvements made at other points in the Gateway are expected to reduce the number of interchanges taking place on the tracks adjacent to City Park.

East Section Projects

- East City Junction (E1): Installation of a universal crossover to provide more flexibility in routing freight and passenger rail through the junction;
- Elysian Fields (E2): Reconfiguration of track and signals to improve route flexibility and increase speed;
- NE Tower (E3): Addition of a northwest quadrant connection between NS and CSX; and installation of centralized traffic control (CTC) on CSX between Elysian Fields and Almonaster Bridge to increase speeds, reduce conflicts for Amtrak and freight. New connection eliminates the current 10 mph Amtrak connection to the Back Belt at Oliver Junction;
- Almonaster Bridge (E4): Renewal of Industrial Canal moveable bridge to reduce maintenance costs and frequency of detours and delays to trains;
- Gentilly Yard (E5): Construction of a 2.5-mile bypass track to increase speeds and reduce conflicts, also improving Amtrak's routing and speeds; and
- Closure of two (2) at-grade railroad crossings.

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4.0 Benefits, Costs and Impacts

The benefits, costs, and impacts of the proposed improvements were assessed for four cases, one base case, and three 2015 future scenarios:

- 2008 Base Case – Existing Conditions;
- 2015 Future Case – No Action Alternative;
- Alternative A – "Back Belt" Project Implementation by 2015; and
- Alternative B – "Middle Belt" Project Implementation by 2015.

The benefits, costs, and impacts are described by key stakeholder, including:

- *City and State:* City of New Orleans and the State of Louisiana;
- *Neighborhoods:* Those in Jefferson and Orleans Parish that abut proposed rail line projects;
- *Shippers and Receivers, Ports:* Major industry in New Orleans, including those operating within the Chemical Corridor;
- *Passenger Railroads:* Amtrak, and possible future New Orleans to Baton Rouge commuter rail operations, and their passengers; and
- *Freight Railroads:* Class I railroads and the NOPB Railroad.

NO ACTION BENEFITS, COSTS AND IMPACTS

The 2015 No Action Alternative estimates the impacts if no improvements are made to the western, central, and eastern sections of the Rail Gateway. It provides a base line for comparison of the build alternatives. The major impacts of the 2015 No Action Alternative are as follows:

- *Future Growth:* Amtrak has reported significant increases in ridership and the USDOT projects import and export freight tonnage could double by 2020 while domestic freight tonnage could increase by about 60 percent over that same time period. The current configuration of the Gateway is not expected to be able to handle much additional growth.
- *Hurricane Evacuation and Response*: I-10 and the Airline Highway dip under the Back Belt tracks. These low points on the highways flood during storms, blocking traffic on I-10 and Airline Highway. This is a critical problem during hurricane evacuations and emergency response operations. Under the 2015 No Action Alternative, the railroad bridges will remain in place and the highways will continue to be subjected to flooding due to limitations or priorities of the stormwater pumping capacity.
- *At-Grade Rail Crossings*: There are 18 at-grade crossings throughout the Gateway. In the 2015 No Action Alternative, no changes will be made to the grade crossings. Cars and trucks crossing the rail lines will continue to be delayed. The continuation of the "Quiet Zone" designation for the crossings will need to be studied.
- *Safety*: In the 2015 No Action Alternative, community safety along the Back Belt will remain a concern. According to a review of the FRA accident/incident database, there were six collisions at the grade crossings along the Back Belt line between the years 1997 and 2007. One collision occurred at Labarre Road, two at Hollywood Drive, and three at Metairie Road. Similar crash rates are anticipated in the future.
- *Vehicle Emissions*: Cars and trucks idling while stopped at the rail grade crossings generate measurable amounts of engine emissions. No significant reduction in emissions, beyond those achieved from the introduction nationally of lower-emission vehicles, is expected in the 2015 No Action Alternative. Diesel emissions from trains idling while awaiting clearance to cross the Back Belt also will not decrease significantly.
- *Railroad Expansion*: In the 2015 No Action Alternative, the Gateway will be operating at maximum practical capacity. While it may be possible to add a few more trains, the Gateway's overall throughput and performance will become highly constrained. The reliability of rail moves and interchanges are at risk of deteriorating below acceptable levels of service for several days at a time.
- *Quality of Service*: The 2015 No Action Alternative anticipates that the quality of service provided to shippers will be about the same as that experienced today. Increases in traffic and congestion will likely result in less reliable services for shippers, receivers, and the ports.

The next sections describe the anticipated benefits, costs, and impacts of the Back Belt and Middle Belt alternatives on freight railroads, passenger railroads, neighborhoods, city and state, and shippers, receivers, and ports.

CITY AND STATE

The Gateway project has the ability to improve the safety and mobility of the region by closing crossings and expediting the movement of freight and passenger traffic. In addition, the Middle Belt (Alternative B) provides an opportunity to fill in low points on I-10 and Airline Highway that are subject to flooding. Both the Back Belt and the Middle Belt improvements would enhance freight and passenger rail service that could support local job growth. The 2015 No Action Alternative would result in no significant change compared to current conditions. The anticipated benefits, costs, and impacts are summarized in Tables 4.1. In this and the following tables, the Base Case represents existing traffic as modeled using *Rail Traffic Controller* software for the 2007 Brown Study.

Table 4.1 City and State Impacts

Measures	2008 Base Case	2015 No Action*	Alternative A: Back Belt	Alternative B: Middle Belt
Hurricane Evacuation/ Response Capabilities (I-10 underpass at NS Back Belt rail line)	I-10 underpass floods during major storms, closing route	No change	No change	I-10 underpass can be filled and rebuilt at grade after tracks are removed, opening route
Hurricane Evacuation/ Response Capabilities (Airline Highway underpass at NS Back Belt rail line)	Airline Highway underpass floods during major storms, closing route	No change	No change	Airline Highway underpass can be filled and rebuilt at grade after tracks are removed, opening route
Local Jobs	Unreliable freight- rail service undermines job growth	No change	More reliable freight-rail service supports job growth	More reliable freight-rail service supports job growth

** The Gateway will be operating at maximum practical capacity.*

The measures used to assess the benefits, costs, and impacts of the Gateway improvements to the City of New Orleans and the State of Louisiana are as follows:

- *Hurricane Evacuation/Response Capabilities:* Ability of alternative to enhance emergency evacuation and response capabilities.
- *Local Jobs:* Ability of the alternative to enhance job opportunities.

Information found in Table 4.1 reflects how each alternative scenario is impacted by the measures.

In summary:

2015 No Action:

- Continued flooding of I-10 and Airline Highway railroad underpasses.
- Potential for some deterioration of freight rail service that could undermine job growth.

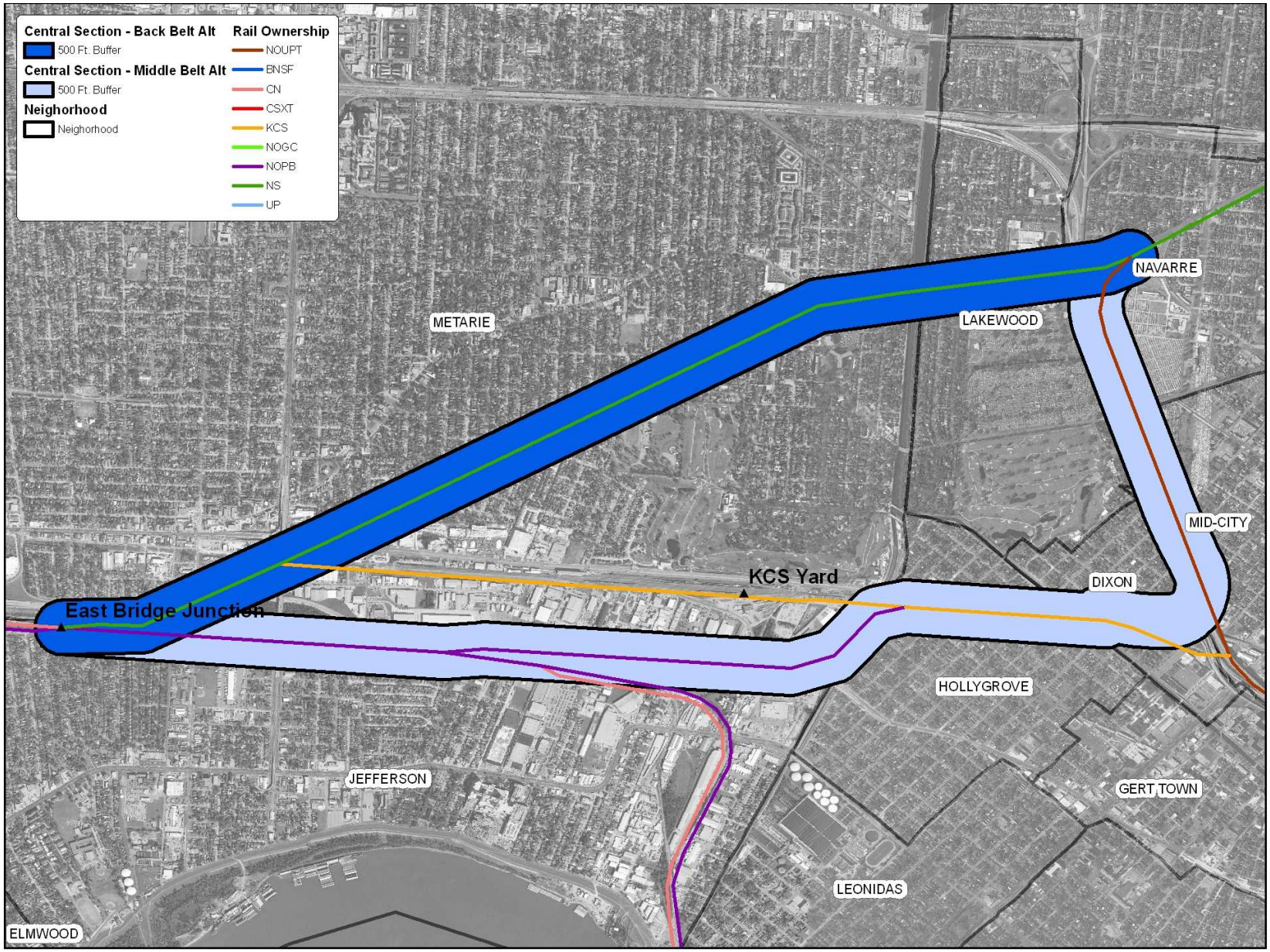
Alternative A:

- Continued flooding of I-10 and Airline Highway railroad underpasses.
- More reliable train operations and the potential for additional freight service to support job growth.

Alternative B:

- Opportunity to fill low points on I-10 and Airline Highway to eliminate evacuation/response routes from flooding.
- More reliable train operations and the potential for additional freight service to support job growth.

Figure 4.0 Central Section Neighborhoods



NEIGHBORHOODS

The measures used to assess the benefits, costs, and impacts of the Gateway improvements on the abutting neighborhoods are as follows:

- *Auto Emissions:* Emissions released from automobiles and trucks delayed at railroad crossings.
- *Rail Emissions:* Emissions released from diesel locomotives transiting Gateway.
- *Noise and Vibration:* Noise and vibration felt within 200 feet of the railroad right-of-way.
- *Safety:* Cost of injury or death per year at grade crossings.
- *Development:* Change in the amount of land available for development.
- *Property Value:* Change in property value as train volumes are reduced or increased.
- *Traffic Delay:* Number of minutes and value of driver time lost while waiting at grade crossings for train traffic to pass.

Figure 4.1 I-10 Critical Flood Section at NS Back Belt

Photos courtesy of LADOTD

West Section Neighborhoods

For purposes of this discussion impacts on the West and East Section Neighborhoods (at-grade crossing closures, track and signal improvements) would be similar.

Table 4.2 West Section Neighborhood Impacts

Measures	2008 Base Case	2015 No Action*	Alternative A: Back Belt	Alternative B: Middle Belt
Auto Emissions	$2,800 / year	$1,500 / year	$0	$0
Rail Emissions	24 freight trains per day	No change	Increase: 28 freight trains per day	Increase: 28 freight trains per day
Noise and Vibration	24 freight trains per day	No change	Increase: 28 freight trains per day	Increase: 28 freight trains per day
Safety	$0 (No Collisions in last 5 years)	No change	No change	No change
Development	Land avail. for development	No change	No change	No change
Property Values	Current	No significant change	No significant change	No significant change
Traffic Delay	5,400 vehicle minutes per day, $840,000 / year	5,800 vehicle minutes per day, $840,000 / year	0 vehicle minutes per day, $0	0 vehicle minutes per day, $0

** The Gateway will be operating at maximum practical capacity.*

In summary:

2015 No Action:

- Rail growth is limited. Potential for railroads to move to other, less congested markets.

Alternative A:

- Grade separation at road crossings results in elimination of vehicle idling at grade crossings. Passenger car emissions and delay are reduced.
- Increased train volumes and higher train speeds result in increased rail emissions, noise, and vibration for the abutting properties.

Alternative B:

- Elimination of rail in the corridor results in elimination of vehicle idling at grade crossings. Passenger car emissions and delay are reduced.
- Elimination of rail in the corridor results in elimination of rail emissions, noise, and vibration.
- Potential for redevelopment of abandoned rail corridor land.

Back Belt Neighborhoods

The Middle Belt (Alternative B) benefits the Back Belt neighborhood of Metairie by removing the existing rail line. The 2015 No Action Alternative results in increased roadway delay at rail crossings due to increased train traffic. The anticipated benefits, costs, and impacts are summarized in Table 4.3.

Table 4.3 Back Belt Neighborhood Impacts

Measures	2008 Base Case	2015 No Action*	Alternative A: Back Belt	Alternative B: Middle Belt
Auto Emissions	$3,400 / year	$1,900 / year	$0	$0
Rail Emissions	24 freight trains per day	No change	Increase: 28 freight trains per day	Decrease: No freight trains
Noise and Vibration	24 freight trains per day	No change	Increase: 28 freight trains per day	Decrease No freight trains
Safety	$7,500 / year	No change	Decrease: $0	Decrease: $0
Development	Fully developed	No change	No change	RR ROW available
Property Values	Current	No significant change	Some decrease possible	Moderate increase likely
Traffic Delay	7,000 vehicle min. per day, $1,050,000 / year	7,600 vehicle min. per day, $1,150,000 / year	0 vehicle minutes per day, $0	0 vehicle minutes per day, $0

* *The Gateway will be operating at maximum practical capacity.*

In summary:

2015 No Action:

- Rail growth is limited. Potential for railroads to move to other, less congested markets.

Alternative A:

- Grade separation at road crossings results in elimination of vehicle idling at grade crossings. Passenger car emissions and delay are reduced.
- Increased train volumes and higher train speeds result in increased rail emissions, noise, and vibration for the abutting properties.

Alternative B:

- Elimination of rail in the corridor results in elimination of vehicle idling at grade crossings. Passenger car emissions and delay are reduced.
- Elimination of rail in the corridor results in elimination of rail emissions, noise, and vibration.
- Potential for redevelopment of abandoned rail corridor land.

Middle Belt Neighborhoods

Middle Belt neighborhoods will be impacted in slightly different ways; therefore they are described in two groups:

- Jefferson neighborhoods, which currently see NOPB and Amtrak rail traffic (switching traffic not accounted for); and
- Dixon, Hollygrove, Lakewood, Mid-City, and Navarre neighborhoods, which currently see only Amtrak rail traffic.

Both groups of lower-income neighborhoods adjacent to the Middle Belt will experience increased rail emissions, noise and vibration, and a likely decrease in property values as a result of the Middle Belt projects. Property values may also decrease under the 2015 No Action, and in the western section of the Jefferson neighborhoods under the Back Belt alternative. There are no at-grade road-rail crossings within the Middle Belt alignment, so there are no changes in passenger car or truck emissions, safety, or traffic delay. The anticipated benefits, costs, and impacts are summarized in Tables 4.4 and 4.5.

In summary:

2015 No Action:

- Western portion on Jefferson may be affected by increased train volumes along the Back Belt.

Alternative A:

- Western portion on Jefferson may be affected by increased train volumes along the Back Belt;
- Rail service continues as it is today approximately the same volumes of NOPB and Amtrak trains; and
- Fewer trains would be staged at City Park, reducing the noise and vibration caused by trains starting, stopping and changing speeds.

Alternative B:

- Increased train volumes and higher train speeds result in increased rail emissions, noise, and vibration for the abutting properties;
- Increased rail activity may possibly result in decreased property values;
- Six residences, businesses, and outdoor recreation field must be relocated; and
- No trains would be staged at City Park, reducing the noise and vibration caused by trains starting, stopping and changing speeds.

Table 4.4 Middle Belt Neighborhoods (Jefferson) Impacts

Measures	2008 Base Case	2015 No Action*	Alternative A: Back Belt	Alternative B: Middle Belt
Auto Emissions	(No at grade crossings, no auto delays)	No change	No change	No change
Rail Emissions	12 NOPB trains, 1 Amtrak train	No change	No change	12 NOPB trains, 28 freight trains, 1 Amtrak train
Noise and Vibration	12 NOPB trains, 1 Amtrak train	No change	No change	12 NOPB trains, 28 freight trains, 1 Amtrak train
Safety	(No at grade crossings)	No change	No change	No change
Development	Fully developed	No change	No change	No change
Property Values	Current	Slight decrease possible	Slight decrease possible	Slight decrease possible
Traffic Delay	(No at grade crossings)	No change	No change	No change

** The Gateway will be operating at maximum practical capacity.*

Table 4.5 Middle Belt Neighborhoods (Navarre, Lakewood, Mid-City, Dixon, and Hollygrove) Impacts

Measures	2008 Base Case	2015 No Action*	Alternative A: Back Belt	Alternative B: Middle Belt
Auto Emissions	(No at grade crossings, no auto delays)	No change	No change	No change
Rail Emissions	2 Amtrak trains per day	No change	No change	Increase: 28 freight trains, 2 Amtrak trains
Noise and Vibration	2 Amtrak trains per day	No change	No change	Increase: 28 freight trains, 2 Amtrak trains
Safety	(No at grade crossings)	No change	No change	No change
Development	Fully developed	No change	No change	Relocate 2 businesses, 2 homes, and baseball field
Property Values	Current	No significant change	No significant change	Moderate decrease likely
Traffic Delay	(No at grade crossings)	No change	No change	No change

** The Gateway will be operating at maximum practical capacity.*

East Section Neighborhoods

For purposes of this discussion impacts on the West and East Section Neighborhoods (at-grade crossing closures, track and signal improvements) would be similar.

Table 4.6 East Section Neighborhood Impacts

Measures	2008 Base Case	2015 No Action*	Alternative A: Back Belt	Alternative B: Middle Belt
Auto Emissions	$2,600 / year	$1,400 / year	$540 / year	$540 / year
Rail Emissions	24 freight trains per day	No change	Increase: 28 freight trains per day	Increase: 28 freight trains per day
Noise and Vibration	24 freight trains per day	No change	Increase: 28 freight trains per day	Increase: 28 freight trains per day
Safety	$17,000 / year (Only recorded collisions at Louisa – no plans to separate)	No change	No change	No change
Development	Fully developed	No change	No change	No change
Property Values	Current	No significant change	No significant change	No significant change
Traffic Delay	1,000 vehicle minutes per day, $150,000 / year	1,100 vehicle minutes per day, $164,000 / year	0 vehicle minutes per day, $0	0 vehicle minutes per day, $0

** The Gateway will be operating at maximum practical capacity.*

In summary:

2015 No Action:

- Rail growth is limited. Potential for railroads to move to other, less congested markets.

Alternative A:

- Grade separation at road crossings results in elimination of vehicle idling at grade crossings. Passenger car emissions and delay are reduced.
- Increased train volumes and higher train speeds result in increased rail emissions, noise, and vibration for the abutting properties.

Alternative B:

- Elimination of rail in the corridor results in elimination of vehicle idling at grade crossings. Passenger car emissions and delay are reduced.
- Elimination of rail in the corridor results in elimination of rail emissions, noise, and vibration.
- Potential for redevelopment of abandoned rail corridor land.

SHIPPERS AND RECEIVERS, PORT OF NEW ORLEANS

The Back Belt (Alternative A) and the Middle Belt (Alternative B) projects provide rail infrastructure enhancements that could support improved service reliability to rail customers. The 2015 No Action Alternative results in no change compared to conditions today. The anticipated benefits, costs, and impacts are summarized in Tables 4.7.

Table 4.7 Shippers and Receivers, Port of New Orleans Impacts

Measures	2008 Base Case	2015 No Action*	Alternative A: Back Belt	Alternative B: Middle Belt
New Orleans Region Shippers and Receivers				
Service Reliability	Inconsistent service	No change	More consistent service	More consistent service
Port of New Orleans				
Throughput	NOPB near capacity, serving interchange traffic	No change	No change	More NOPB capacity available to Port for import/export traffic

** The Gateway will be operating at maximum practical capacity.*

The measures used to assess the benefits, costs, and impacts of the Gateway improvements to shippers, receivers and the Port of New Orleans are as follows:

- *Service Reliability:* Ability of alternative to provide consistent service.
- *Throughput:* Ability of the alternative to enhance job opportunities.

In summary:

2015 No Action:

- Limited capacity for growth constrained by choke points limiting input and service reliability. Continued vehicular delays at crossings;
- NOPB Railroad continues to operate at capacity, limiting port transfers; and
- Freight trains continue to compete with Amtrak trains for limited capacity.

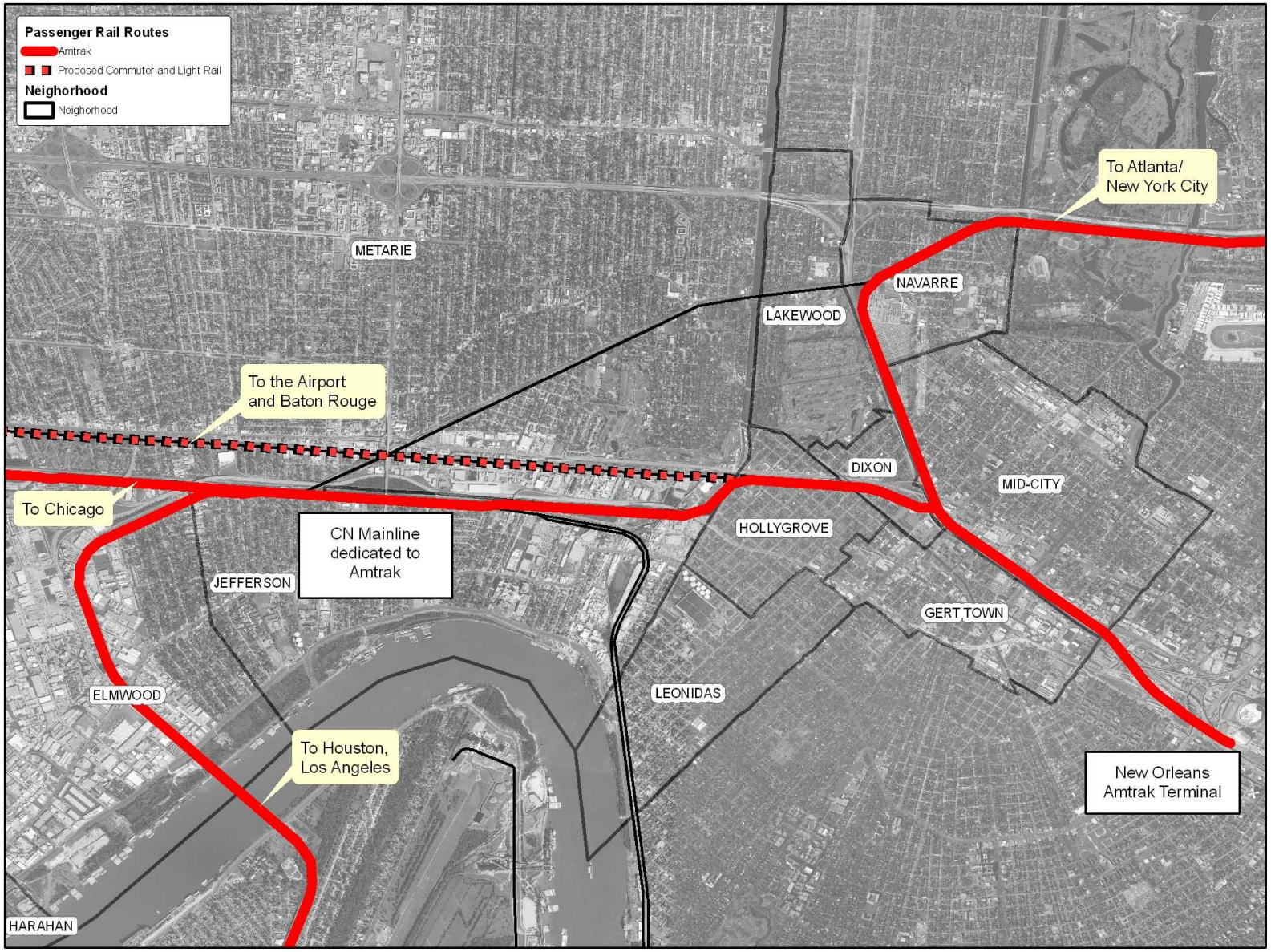
Alternative A:

- More reliable train operations and the potential for additional freight service to support job growth; and
- NOPB Railroad continues at capacity, limiting port-related freight traffic.

Alternative B:

- More reliable train operations and the potential for additional freight service to support job growth; and
- More of existing NOPB Railroad capacity becomes available, creating an opportunity to increase port-related freight traffic.

Figure 4.2 Intercity Passenger Rail Routes (Amtrak)



Source: USGS National Wetlands Research Center, CWPPRA Task Force, LA Department of Environmental Quality

PASSENGER RAIL

The Back Belt (Alternative A) and the Middle Belt (Alternative B) projects improve speeds and transit time for Amtrak trains and passengers. None of the future alternatives impede Amtrak service, and neither the Back Belt nor the Middle Belt improvements preclude development of future commuter or light rail lines. The anticipated benefits, costs, and impacts are summarized in Table 4.2.

Table 4.8 Passenger Rail Impacts

Measures	2008 Base Case	2015 No Action*	Alternative A: Back Belt	Alternative B: Middle Belt
Maximum Speed	10-40 mph	No change	Increase: 30-50 mph	Increase: 30-50 mph
Transit Time / Passenger Benefit	Some schedule delay if Amtrak misses 1 hour window	No Change	6-9 minutes saved per day/ Up to $24,000 per year	More than 6-9 minutes saved per day/ More than $24,000 per year
Commuter Rail	Proposed service to Baton Rouge	No impact: track potentially available for commuter rail	No impact: track potentially available for commuter rail	No impact: track potentially available for commuter rail
Light Rail	Proposed service to airport	No impact: track potentially available for light rail	No impact: track potentially available for light rail	No impact: track potentially available for light rail

* *The Gateway will be operating at maximum practical capacity.*

The measures are defined as follows:

- *Maximum Speed:* The maximum speed of Amtrak trains within the Gateway.
- *Transit Time:* The number of Amtrak minutes saved and the dollar value benefit of the travel time savings to riders.
- *Commuter Rail:* Feasibility of future service.
- *Light Rail:* Feasibility of future service.

In summary:

2015 No Action:

- No significant changes. While the system could accommodate some additional traffic, increased congestion and system delays are anticipated.

Alternative A:

- Throughout the system, maximum Amtrak speeds will increase 10 – 20 mph, reducing delay and saving passenger travel time; and
- Alternative does not preclude future development of commuter or light rail service.

Alternative B:

- Throughout the system, maximum Amtrak speeds will increase 10 – 20 mph, reducing delay and saving passenger travel time; and
- Alternative does not preclude future development of commuter or light rail.

FREIGHT RAILROADS

The Back Belt (Alternative A) and the Middle Belt (Alternative B) projects, along with the other projects of the Gateway Study, improve throughput, reduced delay, and increase revenue traffic for the freight railroads. The anticipated benefits, costs, and impacts are summarized in Table 4.1.

Table 4.9 Freight Railroad Impacts

Measures	2008 Base Case	2015 No Action*	Alternative A: Back Belt	Alternative B: Middle Belt
Throughput (trains per week)	146 trains per week	146 trains per week	166 trains per week	166 trains per week
Hours of Train Delay	29.7 per day LOS E/F (at or above capacity)	29.7 per day LOS E/F (at or above capacity)	Some decrease in delay LOS C/D (est'd) (below or near capacity)	Moderate decrease in delay LOS C/D (est'd) (below or near capacity)
National Rail Freight System Capacity	New Orleans Gateway at capacity	No change	Increases New Orleans Gateway interchange capacity	Increases and enhances New Orleans Gateway interchange capacity

** The Gateway will be operating at maximum practical capacity.*

The measures are defined as follows:

- *Throughput:* Number of trains operating through the Gateway.
- *Delay:* Hours of delay experienced by the railroads.
- *National Rail Freight System Capacity:* Interchange capacity at New Orleans Rail Gateway.

The throughput is based on rail traffic growth estimated at 1% per year for manifest traffic and 4% for intermodal.wGU:JEWWjx N)UULBLoJW:xoNC

5.0 Key Findings

This report conducted a review of the anticipated benefits, costs, and impacts of making improvements to the rail lines within the central section of the New Orleans Rail Gateway. As stated before, the Gateway is an integrated corridor; to generate useful benefits, the deficiencies of all three segments need to be addressed. The major impacts of each alternative can be found on the following pages and are grouped by:

- No Action Alternative
- Back Belt Alternative
- Middle Belt Alternative

No Action Alternative

Groups that may be ***disadvantaged*** if no action is taken:

- *City and State Public Safety:* Continued risks associated with highway-rail crossings. Challenges of maintaining the pumping capacity to prevent the closures of the I-10 underpass and the Airline Highway underpass at the Back Belt caused by flooding from Hurricane events and/or major rainfall storms;
- *Avondale Neighborhood:* Increased rail traffic causing more congestion at crossings; note this area has been identified for additional residential development;
- *Metairie Neighborhood*: No relief from existing conditions and if rail traffic increases, then more congestion at crossings; with increased noise and vibration;
- *Jefferson Neighborhood*: Increased emissions, noise, vibration caused by increased traffic and increased staging of trains on the Back Belt between East City Jct. and Peoples Canal (generally at City Park);
- *Gentilly Neighborhood*; Increased rail traffic, causing more congestion at crossings caused by trains held out of Gentilly Yard; increased noise and vibration;
- *Shippers and Receivers:* Reduced reliability of rail freight services potentially affecting the competitiveness of New Orleans and Louisiana shippers; and
- *Passenger Rail*: Limited ability to expand rail passenger or future light rail service.

Back Belt Alternative

Groups that may ***benefit*** if the Back Belt alternative is selected:

- *City and State*: Retention of rail shippers; better service to support economic development;
- *Avondale Neighborhood, Metairie Neighborhood, and Gentilly Neighborhood;* Reduced traffic delay and auto emissions from elimination of at-grade crossings; less noise and vibration from starting and stopping trains;
- *Shippers and Receivers*: Improved rail shipment reliability;
- *Passenger Rail*: Improved speeds and reliability, reduced delays; and
- *Freight Railroads*: Reduced delay, some increased, but limited, capacity for future growth.

Groups that may be ***disadvantaged*** if the Back Belt alternative is selected:

- *Metairie Neighborhood*: Additional rail traffic, emissions, noise, and vibration; and
- *Jefferson Neighborhood*: Additional rail traffic, emissions, noise, and vibration.

Middle Belt Alternative

Groups that may ***benefit*** if the Middle Belt alternative is selected:

- *City and State*: Opportunity to fill in the I-10 and Airline Highway underpasses, which flood during storms, improving emergency evacuation and post-disaster emergency worker access, reduced traffic delays; retention of rail shippers; better service to support economic development;
- *Avondale Neighborhood*: Reduced traffic delay and auto emissions from elimination of at-grade crossings, less emissions, noise and vibration;
- *Metairie Neighborhood*: Reduced traffic delay and auto emissions from elimination of at-grade crossings; less emissions, noise, and vibration; and creation of additional developable land;
- *City Park Neighborhood*: Reduced train noise, vibration, and emissions because rail interchange operations are relocated to a predominantly industrial area;
- *Shippers and Receivers*: Improved service reliability;
- *Port of New Orleans*: Additional capacity on the NOPB rail line allowing for expansion of the port's intermodal container shipping business;
- *Passenger Rail*: Higher maximum speeds and reliability compared to the Back Belt alternative; reduced delay; and
- *Freight Railroads*: Increased train throughput compared to the Back Belt alternative. Large increase in capacity for future growth.

Groups that may be ***disadvantaged*** if the Middle Belt alternative is selected:

- *Mid-City, Dixon, and Hollygrove Neighborhoods*: If not mitigated, additional rail emissions, noise, and vibration; loss or relocation of two homes, two businesses, and an outdoor recreation field; and
- *Jefferson Neighborhood*: If not mitigated, additional rail traffic, emissions, noise, and vibration.